

DOE-2 DIRECTORY

Program Related Software and Services

Contact vendors for prices and ordering information

Mainframe and Workstation Versions of DOE-2

DOE-2.1D and 2.1E (Source code, executable code and documentation) For 2.1E DEC-VAX, Order #000158-DOVAX-02 For 2.1E SUN-4, Order #000158-SUN-0000 For 2.1D DEC-VAX, Order #000158-D6220-01 For a complete listing of the software available from ESTSC order their "Software Listing" catalog ESTSC-2. [See User News Vol. 16, No. 3, p. 21]	Energy Science / Technology- Software Center (ESTSC) P.O. Box 1020 Oak Ridge, TN 37831-1020 Phone: (615) 576-2606 Fax: (615) 576-2865 email: ESTSC@ADONIS.OSTI.GOV www: http://www.doe.gov/html/osti/estsc/estsc.html
FTI-DOE2.1E (Source code and documentation) Combined source code package for both VAX and SUN versions of DOE-2.1E. Available on most distribution formats and for most operating systems (1/4" QIC tape, TK50 tape, 3.5" floppy, etc). Note: this is the distribution package only, no executables. Complete documentation for DOE-2.1E, digitally reproduced, spiral bound, and separated into multi-volume sets. [See User News Vol. 12, No. 4, p. 16]	Finite Technologies, Inc. 3763 Image Drive Anchorage, AK 99504 Contact: Scott Henderson Phone: (907) 333-8933 Fax: (907) 333-4482 email: info@finite-tech.com www: http://www.finite-tech.com/fti/home.html

PC Versions of DOE-2

ADM-DOE2 ADM-DOE2 (DOE-2.1E) is compiled for use on 386/486 PCs with a math co-processor and 4MB of RAM. It runs in a DOS or Windows environment and is a highly reliable and tested version of DOE-2 which contains all of the 1994/95 enhancements to the program. The package contains everything needed to run the program: program files, utilities, sample input files, and weather files. More than 300 weather files are available (TMY, TRY, WYEC, CTZ formats) for the U.S. and Canada. [See User News Vol. 7, No. 2, p. 6]	ADM Associates, Inc. 3239 Ramos Circle Sacramento, CA 95827 Contact: Marla Sullivan, Sales Phone: (916) 363-8383 Fax: (916) 363-1788
CECDOEDC (Version 1.0A) A microcomputer version of DOE-2.1D with a pre- and post-processor designed strictly for compliance use within the State of California. It generates some of the standard compliance forms as output. Order P40091009 for the CECDOEDC Program with Manuals. Order P40091010 for the DOE-2.1 California Compliance Manual. [See User News Vol. 12, No. 4, p. 13]	MS: 13 -- Publication Office California Energy Commission P.O. Box 944295 Sacramento, CA 94244-2950 Phone: (916) 654-5106 www: http://agency.resource.ca.gov/cectext/ETEC.html

Caveat : We list third-party DOE-2-related products and services for the convenience of program users, with the understanding that the Simulation Research Group does not have the resources to check the DOE-2 program adaptations and utilities for accuracy or reliability.

PC Versions of DOE-2 (continued)

<p>DOE-24/Comply-24 DOE-24 is a special DOE-2 release which is both a California-approved compliance program for the state's non-residential energy standards, and a stand-alone version of DOE-2.1E that includes a powerful yet easy-to-use input preprocessor. A demonstration program is available upon request. [See User News Vol. 12, No. 2, p. 2]</p>	<p>Gabel-Dodd Associates 1818 Harmon Street Berkeley, CA 94703-2416 Contact: Rosemary Howley Phone: (510) 428-0803 Fax: (510) 428-0324</p>
<p>DOE-Plus™ DOE-Plus, a complete implementation of DOE-2.1D, is used to interactively input a building description, run DOE-2, and plot graphs of simulation results. Features include interactive error checking, context-sensitive help for all DOE-2 keywords, a 3-D view of the building that can be rotated, and several useful utilities. Also from ITEM Systems: Demand Analyzer™, uses templates of building types and vintages to simplify DOE-2 input requirements. Online help feature. Prep™, a batch preprocessor, ideal for parametric studies, that enables conditional text substitution, expression evaluation, and spawning of other programs. [See User News Vol. 11, No. 4, p. 4 and Vol. 13, No. 2, p. 54, and Vol. 16, No. 1, p. 28-32]</p>	<p>ITEM Systems 1402 - 3rd Avenue, #901 Seattle, WA 98101 Contact: Steve Byrne Phone: (206) 382-1440 Fax: (206) 382-1450 email: byrne@item.com</p>
<p>EZDOE EZDOE is an easy-to-use PC version of DOE-2.1D. It provides full screen, fill in the blank data entry, dynamic error checking, context-sensitive help, mouse support, graphic reports, a 750-page user manual, extensive weather data, and comprehensive customer support. EZDOE integrates the full calculation modules of DOE-2 into a powerful, full implementation of DOE-2 on DOS-based 386 and 486 computers. [See User News Vol. 14, No. 2, p. 10 and No. 4, p. 8-14]</p>	<p>Elite Software, Inc. P.O. Drawer 1194 Bryan, TX 77806 Contact: Bill Smith Phone: (409) 846-2340 Fax: (409) 846-4367 email: 76070.621@compuserve.com</p>
<p>FTI-DOEv2.1E Highly optimized version of DOE-2.1E software, available for most computing systems. Current support: MSDOS and Windows 3.x, Windows NT, OS/2, RS/6000 (AIX), NeXT, SUN, UNIX (most systems). Call for platforms not listed. Documentation and weather files are available. Also FTI-DOEv2.1E source code, highly optimized and portable version; will compile for most systems. [See User News Vol. 12, No. 4, p. 16]</p>	<p>Finite Technologies, Inc 821 N Street, #102 Anchorage, AK 99501 Contact: Scott Henderson Phone: (907) 272-2714 Fax: (907) 274-5379 email: info@finite-tech.com www: http://www.finite-tech.com/fti/home.html</p>

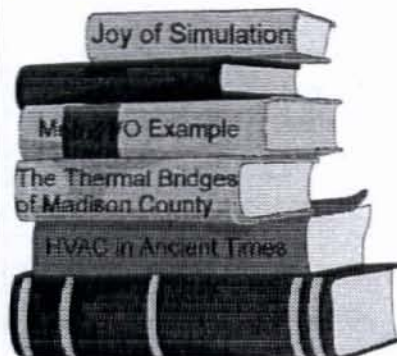
PC Versions of DOE-2 (continued)

<p>MICRO-DOE2™ MICRO-DOE2 (2.1E), which runs in a DOS or windows environment, is a widely used, reliable, and tested PC version of DOE-2. It includes automatic weather processing, batch file creation, and a User's Guide with instructions on how to set up a RAM drive. System requirements: 386/486 PC with 4 MB of RAM and math co-processor.</p> <p>Also from Acrosoft, International, Inc.:</p> <p>NETPath, a network edition of MICRO-DOE2, allows you to store and run DOE-2 application files on one machine using input files from another machine. The result is improved space usage and project file management.</p> <p>POWERPath, for single machines, allows you to keep MICRO-DOE2 application files in one directory and submit input from any other directory.</p> <p>BDL Builder, is a pre-processor for DOE-2.1E that allows you to describe specific building and HVAC characteristics by preparing databases, or building blocks, and then selecting records from the databases to assemble a complete input.</p> <p>E2BB translates DOE-2.1E text input to BDL Builder.</p> <p>[See User News Vol. 7, No. 4, p. 2; Vol. 11, No. 1, p. 2; Vol. 15, No. 1, p. 8; Vol. 15, No. 3, p. 4; Vol. 16, No. 2, p. 1,7; Vol. 16, No. 4, p. 7-8]</p>	<p>Acrosoft International, Inc. 3435 South Yosemite St., #220 Denver, CO 80231 Contact: Gene Tsai Phone: (303) 696-6888 Fax: (303) 696-0388 email: 102447.2611@compuserve.com</p>
<p>PRC-DOE2 A fast, robust and up-to-date PC version of DOE-2.1E. Runs in extended memory, is compatible with any VCPI compliant memory manager and includes its own disk caching. 377 weather data files available (TMY, TRY, WYEC, CTZ) for the U.S. and Canada</p> <p>Also from the Partnership for Resource Conservation:</p> <p>PRC-TOOLS, a set of PC programs that aids in extracting, analyzing and formatting hourly DOE-2 output. Determines energy use, demand, and cost for any number of end-uses and periods. Automatically creates 36-day load shapes. Custom programs also available.</p>	<p>Partnership for Resource Conservation 140 South 34th Street Boulder, CO 80303 Contact: Paul Reeves Phone or FAX: (303) 499-8611 email: paulreeves@aol.com</p>
<p>VisualDOE-2.0 for Windows™ VisualDOE-2.0, which uses DOE-2.1E as the calculation engine, enables architects and engineers to quickly evaluate the energy savings of HVAC and other building design options. Program is supported by context-sensitive on-line help. Program includes climate data for the 16 California weather zones. [See User News Vol. 15, No. 2, p. 10 and Vol. 16, No. 4, p. 9-16]</p>	<p>Eley & Associates 142 Minna Street San Francisco, CA 94105 Contact: Charles Eley or John Kennedy Phone: (415) 957-1977 Fax: (415) 957-1381</p>

Pre- and Post-Processors for DOE-2

DOE123 Uses Lotus 1-2-3 to graphically display DOE-2.1D output as barcharts, pie charts, and line graphs. [See User News Vol. 10, No. 3, p. 5]	Ernie Jessup 4977 Canoga Avenue Woodland Hills, CA 91364 Phone: (818) 884-3997
DrawBDL DrawBDL, Version 2.02, is a graphic debugging and drawing tool for DOE-2 building geometry; it runs on PC's under Microsoft Windows. DrawBDL reads your BDL input and makes a rotatable 3-D drawing of your building with walls, windows and building shades shown in different colors for easy identification. [See User News Vol. 14, No. 1, p. 5-7, Vol. 14, No. 4, p. 16-17, and Vol. 16, No. 1, p. 37]	Joe Huang & Associates 6720 Potrero Avenue El Cerrito CA 94530-2248 Contact: Joe Huang Phone/Fax: (510) 236-9238
Graphs for DOE-2 2-D, 3-D, hourly, daily, and psychrometric plots [See User News Vol. 13, No. 1, p. 5]	Energy Systems Laboratory Texas A&M University College Station, TX 77843 Contact: Jeff Haberl Phone : (409) 845-6065 Fax: (409) 862-2762
Pre-DOE A math pre-processor for BDL.	Nick Luick 19030 State Street Corona, CA 91719 Phone: (714) 278-3131

DOE-2.1E Documentation Update



Sample Run Book: Metric Input/Output Example

Recently, it was brought to our attention that Section 13 of the DOE-2.1E Sample Run Book was missing. Sure enough, due to an error on our part Section 13, the Metric I/O Example, was never sent to the printer. If you would like a copy of this example, please fax your request to Kathy Ellington at (510) 486-4089 or send email to KLEllington@lbl.gov

R E S O U R C E S

<p>User News (a quarterly newsletter) Sent without charge to DOE-2 and BLAST users, the newsletter prints documentation updates and changes, bug fixes, inside tips on using the programs more effectively, and articles of special interest to program users.</p> <p>Regular features include a directory of program-related software and services and an order form for documentation. The winter issue features an index of articles printed in all the back issues.</p>	<p>Simulation Research Group Bldg. 90, Room 3147 Lawrence Berkeley National Laboratory Berkeley, CA 94720 Contact: Kathy Ellington Fax: (510) 486-4089 email: kathy@gundog.lbl.gov</p>
<p>Help Desk Bruce Birdsall</p> <p>Call or fax Bruce Birdsall if you have a question about using DOE-2. If you need to fax an example of your problem to Bruce, please be sure to telephone him prior to sending the fax. This is a free service provided by the Simulation Research Group at Lawrence Berkeley National Laboratory.</p>	<p>Bruce Birdsall Phone and Fax: (510) 829-8459</p> <p>Monday through Friday 10 a.m. to 3 p.m. Pacific Time</p>
<p>Training DOE-2 courses for beginning and advanced users.</p> <p>DOE-2 training for small groups and individuals.</p>	<p>Energy Simulation Specialists 64 East Broadway, Suite 230 Tempe, AZ 85282 Contact: Marlin Addison Phone: (602) 967-5278</p> <p>Gary H. Michaels, P.E. 1512 Crain Street Evanston, IL 60202 Phone: (708) 869-5859</p> <p>Norm Weaver Interweaver Consulting P.O. Box 775444 Steamboat Springs, CO 80477 Phone: (970) 870-1710</p>
<p>Instructional DOE-2 Video and Manual Takes you step-by-step in DOE-2.1D input preparation and output interpretation.</p>	<p>JCEM/U. Colorado Campus Box 428 Boulder, CO 80309-0428 Contact: Prof. Jan Kreider Phone: (303) 492-3915</p>
<p>DOE-2.1E Bug Fixes via FTP If you have Internet access you can obtain the latest bug fixes to DOE-2.1E by anonymous ftp. The procedure is as follows: ftp to either gundog@lbl.gov or to 128.3.254.10 login: <i>type</i> anonymous passwd: <i>type in your email address</i> After logging on, go to directory <code>pub/21e-mods</code>; bug fixes are in files that end with <code>.mod</code>. A description of the fixes is in file <code>VERSIONS.txt</code> in directory <code>pub</code>. Each fix has its own version number, <i>nnn</i>, which is printed out as DOE-2.1E-<i>nnn</i> on the DOE-2.1E banner page and output reports when the program is recompiled with the fix. You may direct questions about accessing or incorporating the bug fixes to Ender Erdem (ender@gundog.lbl.gov).</p>	

R E S O U R C E S (continued)

Weather Data

Comprehensive collection of TRY, TMY and CTZ weather file libraries, from NCDC, which can be used on all PC versions of DOE-2. Includes original source data and pre-formatted packed versions on a single IBM format CD. For Canadian users, the CD contains five weather files representing the five climate regions established by the Canadian energy codes. Individual sites available.	Jenny Lathum or Martyn Dodd EnergySoft 100 Galli Drive, Suite 1 Novato, CA 94949 Phone: (800) 467-4738 Fax: (415) 883-5970
European Weather Files	Andre Dewint Alpha Pi, s.a. rue de Livourne 103/12 B-1050 BRUXELLES, Belgium Phone: 32-2-649-8359 Fax: 32-2-649-9437
TMY (Typical Meteorological Year) TRY (Test Reference Year)	National Climatic Data Center 151 Patton Avenue, #120 Asheville, NC 28801 Phone: (704) 271-4871 order Phone: (704) 271-4800 main Fax: (704) 271-4876
CTZ (California Thermal Climate Zones)	California Energy Commission Bruce Maeda, MS-25 1516-9th Street Sacramento, CA 95814-5512 1-800-772-3300 Energy Hotline
WYEC (Weather Year for Energy Calculation)	ASHRAE 1791 Tullie Circle N.E. Atlanta, GA 30329 Phone: (404)636-8400 Fax: (404)321-5478
Canadian Weather Files in WYEC2 Format [Note: the original long-term data sets, up to 40 years of data, from which the CWEC files were derived can also be obtained directly from Environment Canada. contact Mr. Robert Morris at (416) 739-4361.]	Dr. Didier Thevenard Watsun Simulation Laboratory University of Waterloo Waterloo, Ont., N2L-3G1 Canada Phone: (519) 888-4904 Fax: (519) 888-6197 watsun@helix.watstar.uwaterloo.ca

DOE-2 ENERGY CONSULTANTS (continued)

Consulting Engineers Susan Reilly Enermodal Engineering 1554 Emerson Street Denver, CO 80218 (303) 861-2070	Technical Real World Analysis David J. Schwed Romero Management Associates 1805 West Avenue K, # Lancaster, CA 93534 (805) 940-0540
Energy Simulation Consultant Joel Neymark, P.E. 2140 Ellis Street Golden, CO 80401 (303) 384-0307	Consulting Engineers Gregory Banken, P.E. Q-Metrics, Inc. P.O. Box 3016 Woodinville, WA 98072 (206) 915-8590
Consulting Engineers Chandra Shinde, P.E. ENVIRODESIGN GROUP 385 S. Lemon Ave., E-266 Walnut, CA 91789 (909) 598-1980	Energy Engineering and Analysis Leo Rainer Davis Energy Group, Inc. 123 C Street Davis, CA 95616 (916) 753-1100
Energy Codes DSM Doug Mahone The Hesbong Mahone Group 4610 Paula Way Fair Oaks, CA 95628 (916) 962-7001	Consulting Energy Engineers Gary H. Michaels, P.E. 1512 Crain Street Evanston, IL 60202 (708) 869-5859
Consulting Engineer Robert Mowris, P.E. 606 Pelton Avenue Santa Cruz, CA 95060 (408) 454-0606	Energy/DSM-Consultants Adrian Tuluca Steven Winter Associates 50 Washington Street Norwalk, CT 06854 (203) 852-0110
Modeling Specialist Norm Weaver Interweaver Consulting P.O. Box 775444 Steamboat Springs, CO 80477 (970) 870-1710	Consultant/Building Systems Engineering Ellen Franconi 1504 Grant Street Berkeley, CA 94703 (510) 559-8340
Large Facility Modeling George Marton Consulting Engineer 1129 Keith Avenue Berkeley, CA 94708 (510) 841-8083	Consultant Engineers David A. Cohen Architectural Energy Corporation 2540 Frontier Avenue, #201 Boulder, CO 80301 (303) 444-4149
Consultant Kurmit Rockwell Rocky Mountain Energy Services 1705 14th Street, Suite 401 Boulder, CO 80302 (303) 499-7907	

DOE-2 ENERGY CONSULTANTS (continued)

Consulting Engineers Susan Reilly Enermodal Engineering 1554 Emerson Street Denver, CO 80218 (303) 861-2070	Technical Real World Analysis David J. Schwed Romero Management Associates 1805 West Avenue K, # Lancaster, CA 93534 (805) 940-0540
Energy Simulation Consultant Joel Neymark, P.E. 2140 Ellis Street Golden, CO 80401 (303) 384-0307	Consulting Engineers Gregory Banken, P.E. Q-Metrics, Inc. P.O. Box 3016 Woodinville, WA 98072 (205) 915-8590
Consulting Engineers Chandra Shinde, P.E. ENVIRODESIGN GROUP 385 S. Lemon Ave., E-266 Walnut, CA 91789 (909) 598-1980	Energy Engineering and Analysis Leo Rainer Davis Energy Group, Inc. 123 C Street Davis, CA 95616 (916) 753-1100
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Consulting Engineer Robert Mowris, P.E. 606 Pelton Avenue Santa Cruz, CA 95060 (408) 454-0606	Energy/DSM-Consultants Adrian Tuluca Steven Winter Associates 50 Washington Street Norwalk, CT 06854 (203) 852-0110
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Consultant Kurmit Rockwell Rocky Mountain Energy Services 1705 14th Street, Suite 401 Boulder, CO 80302 (303) 499-7907	

DOE-2 ENERGY CONSULTANTS INTERNATIONAL

Mainframe DOE-2 for European Users Joerg Tscherry EMPA, Section 175 8600 Dubendorf Switzerland	Energy Consultant Philip Schluchter Institut fur Bauphysik Klein Urs Graf-Strasse 1 CH4052 Basel Switzerland
Consultant, Distributor for FTI-DOEv2.1E Andre Dewint rue de Livourne 103/12 B-1050 BRUXELLES Belgium	Consultant Werner Gygli Informatik Energietechnik Weiherweg 19 CH-8604 Volketswil Switzerland
Consultant Curt Hepting, P.Eng. EnerSys Analytics 3990 Lynn Valley Road North Vancouver, B.C. V7K 2S9 Canada	DOE-2 Simulation Specialist René Meldem gb consult ag 30-A, Chemin de la Fauvette P.O. Box 106 CH-1012 Lausanne Switzerland
Energy and Environmental Engineering Neil A. Caldwell D. W. Thomson Consultants, Ltd. 1985 West Broadway Vancouver, BC V6J 4Y3 Canada	



DOE-2 RESOURCE CENTERS

The people listed here have agreed to be primary contacts for DOE-2 program users in their respective countries. Each resource center has the latest program documentation, all back issues of the User News, and recent LBNL reports pertaining to DOE-2. These resource centers will receive copies of all new reports and documentation. Program users can then make arrangements to get photocopies of the new material for a nominal cost. We hope to establish resource centers in other countries; please contact us if you are interested in establishing a center in your area.

<p>South America Prof. Roberto Lamberts Universidade Federal de Santa Catarina Campus Universitario--Trindade Cx. Postal 476 88049 Florianopolis SC BRASIL</p> <p>Telephone: (55)482-31-9272 Fax: (55)48-231-9770 email: Lamberts@ecv.ufsc.BR</p>	<p>Australasia Dr. Deo K. Prasad/P. C. Thomas SOLARCH University of New South Wales P.O. Box 1 Kensington, N.S.W. 2033 AUSTRALIA</p> <p>Telephone: (61)-2-697-5783 (P.C. Thomas) Fax: (61) 2-662-4265 or -1378 email: PC.Thomas@unsw.EDU.AU</p>
<p>Portugal, Spain, Italy, and Greece Antonio Rego Teixeira ITIME Unidade de Energia Estrada do Paco do Lumiar 1699 Lisboa PORTUGAL</p> <p>Telephone: (351) 1-716-4096 Fax: (351) 1-716-4305 email: itime.ue@mail.telpac.pt</p>	<p>Australia Murray Mason ACADS BSG 16 High Street Glen Iris VIC. 3146 AUSTRALIA</p> <p>Telephone: (61) 885 6586 Fax: (61) 885 5974</p>
<p>Singapore, Malaysia, Indonesia, Thailand, and the Philippines WONG Yew Wah, Raymond Nanyang Technological University School of Mechanical and Production Engineering Nanyang Avenue Singapore 2263 REPUBLIC OF SINGAPORE Telephone: (65)799-5543 Fax: (65)791-1859 email: mywwong@ntuvax.ntu.ac.sg</p>	<p>Germany B. Barath or G. Morgenstern BARATH and WAGNER Rudolf-Diesel-Strasse 2, 40670 Meerbusch GERMANY</p> <p>Telephone: (49) 2159 528041 Fax: (49) 2159 528043</p>
<p>Hong Kong, China, Taiwan, Japan and Korea Dr. Sam Chun-Man HUI or K.P. Cheung University of Hong Kong Pokfulam Road HONG KONG</p> <p>Telephone: (852) 2859-2133 (direct to Sam Hui) Fax: (852) 2559-6484 Email: CMHUI@HKUCC.HKU.HK</p>	<p>Switzerland René Meldem gb consult ag 30-A, Chemin de la Fauvette P.O. Box 106 CH-1012 Lausanne SWITZERLAND</p> <p>Telephone: (41) / 21 653-5677 Fax: (41) / 21 653-2884 Email: 100713.3072@compuserve.com</p>

DOE-2 PROGRAM DOCUMENTATION

DOE-2 documentation is available from several sources.

- The National Technical Information Service offers a complete set of DOE-2 manuals, available for purchase separately; prices and ordering information are below.
- Kinko's Copy Center of Berkeley offers the DOE-2.1E updated documentation (BDL Summary, Sample Run Book, and Supplement) as a set; their price includes shipping within the U.S.; see below
- The Energy Science Technology Software Center at Oak Ridge, TN, offers the DOE-2.1E updated documentation free of charge when you purchase the mainframe or workstation version of DOE-2. See the "DOE-2 Directory of Program Related Software and Services" in this issue.
- And finally, many of the PC vendors of DOE-2 offer some or all of the documentation when you buy their program. Names and addresses of all DOE-2 vendors are found in the "DOE-2 Directory of Program Related Software and Services" in this issue.

To order any or all of the DOE-2 manuals from the National Technical Information Service:

National Technical Information Service
5285 Port Royal Road
Springfield, VA 22161
Phone (703) 487-4650
FAX (703) 321-8547

Document Name	Order Number	Price
DOE-2 Basics Manual (2.1E)	DE-940-13165	44.50
BDL Summary (2.1E)	DE-940-11217	27.00
Sample Run Book (2.1E)	DE-940-11216	91.00
Reference Manual (2.1A)	LBL-8706, Rev.2	126.00
Supplement (2.1E)	DE-940-11218	91.00
Engineers Manual (2.1A) [algorithm descriptions]	DE-830-04575	52.00

To order the DOE-2.1E "update" documentation from Kinko's Copy Center in Berkeley, California:

Ms. Dani Aalfs
Kinko's Copy Center
901 University Avenue
Berkeley, CA 94710
Phone: (510) 204-0781
Fax: (510) 644-9704

"Update" documentation includes the 2.1E BDL Summary, 2.1E Supplement, and 2.1E Sample Run Book. Cost of the three manuals is \$125 which includes any applicable taxes, shipping, and handling. For foreign orders, please fax Ms. Aalfs to ascertain extra shipping costs. VISA, MasterCard.

World-Wide Web and Internet Sites for Building Energy Efficiency

(net) sci.engrg.heat-vent-ac	HVAC discussion group.
(net) sci.engrg.lighting	Lighting discussion group.
http://energy.ca.gov/energy/cectext/ETEC.html	California Energy Commission's Energy Technology and Education Center . See User News , Vol. 16, No. 1, p. 42.
http://www.hike.te.chiba-u.ac.jp/ikeda/CIE/publ/110-94.html	The International Commission on Illumination - CIE . See User News , Vol. 16, No. 1, p. 44.
http://www.eren.doe.gov/	EREN: Energy Efficiency and Renewable Energy Network of the U.S. Department of Energy . See User News , Vol. 16, No. 1, p. 44.
http://www.doe.gov/	U.S. Department of Energy . See User News , Vol. 15, No. 4, p. 1.
http://www.whitehouse.gov/	The White House home page contains an Interactive Citizens Handbook that lists U.S. Government servers by agency. Use this site as a jumping-off point to explore other Federal agencies. See User News , Vol. 15, No. 4, p. 1.
http://www.fedworld.gov/	FedWorld is the U.S. Government's Federal Information Network home page. It lists web servers, ftp, gopher, and telnet sites and is organized by subject categories.
http://www.fedworld.gov/ntis/ntishome.html	National Technical Information Service NTIS is part of the U.S. Department of Commerce; it gathers and markets scientific, technical and business-related information and disseminates it electronically, on paper copy, on diskette, or on CD-ROM. NTIS has access to more than two million documents, reports, studies, computer programs, and databases; it adds an average of 1,300 titles each week. Call (703) 487-4650 for info.
http://www.caddet-ee.org	Center for the Analysis and Dissemination of Demonstrated Energy Technologies CADDET is an International Energy Agency program responsible for collecting and disseminating information on demonstrated, energy-efficient and renewable energy technologies. See User News , Vol. 16, No. 2, p. 23.
http://crest.org/aceee	American Council for an Energy-Efficient Economy ACEEE is a non-profit organization dedicated to advancing energy efficiency as a means of promoting both economic prosperity and environmental protection. See User News , Vol. 16, No. 2, p. 23.
http://www.ashrae.org	American Society of Heating, Refrigeration and Air-Conditioning ASHRAE is an international membership organization operated for the exclusive purpose of advancing the arts and sciences of heating, refrigeration, air conditioning and ventilation. ASHRAE sponsors research, develops standards for industry, publishes technical and scientific data, and organizes conferences and educational activities. See User News , Vol. 16, No. 3, p. 31.
http://www.cisti.nrc.ca:80/irc/irccontents/html	[Canadian] Institute for Research in Construction IRC is an integral part of the National Research Council, Canada's premier science and technology agency. IRC is the leader in research, technology and innovation for the Canadian construction industry through the development of national construction codes. See User News , Vol. 16, No. 3, p. 31.
http://eicbbs.wseo.wa.gov/	Washington State Energy Office/Energy Ideas Clearinghouse Information and technical support for increasing energy efficiency in the commercial and industrial sectors. Clients include utility staff, engineers, facility owners and operators, consultants and other energy professionals. Up-to-date information on products and technologies; national, state, and local programs; and the environmental aspects of energy use is available at the Clearinghouse.
http://next1.mae.okstate.edu:80/ibpsa/	International Building Performance Simulation Association IBPSA is a not-for-profit international society of building performance simulation researchers, developers and practitioners, dedicated to improving the built environment.

*** * * Featured Sites This Issue * * ***

World-Wide Web and Internet Sites for Building Energy Efficiency

Washington State Energy Office/Energy Ideas Clearinghouse
<http://eicbbs.wseo.wa.gov/>

Established in 1990, the Energy Ideas Clearinghouse provides information and technical support for increasing energy efficiency in the commercial and industrial sectors. Clients include utility staff, engineers, facility owners and operators, consultants and other energy professionals. Up-to-date information on products and technologies; national, state, and local programs; and the environmental aspects of energy use is available at the Clearinghouse. The Clearinghouse offers two primary services: a technical assistance hotline and an electronic bulletin board. The hotline provides comprehensive and timely answers to technical questions posed by utilities and building professionals in the states served by BPA or Western Area Power Administration.

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International Building Performance Simulation Association IBPSA
<http://next1.mae.okstate.edu:80/ibpsa/>

IBPSA is a not-for-profit international society of building performance simulation researchers, developers and practitioners, dedicated to improving the built environment.

IBPSA was founded to advance and promote the science of building performance simulation in order to improve the design, construction, operation and maintenance of new and existing buildings worldwide. To take a leading role in the promotion and development of building simulation technology, IBPSA aims to provide a forum for researchers, developers and practitioners to review building model developments, facilitate evaluation, encourage the use of software programs, address standardization, accelerate integration and technology transfer.

For more information, contact:
Larry Degelman
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Fax 409 845 4491

HELP WANTED - Steven Winter Associates, Inc. / Building Systems Consultants / 50 Washington Street / Norwalk, CT 08854 / Telephone (203) 852-0110 / Fax (203) 852-0741

Engineer, HVAC 2-4 years design experience. Knowledge of energy-efficient technologies a plus. Will train for state-of-the art energy/IAQ studies on a wide range of buildings. Contact Adrian Tuluca

Senior Research Associate for Energy Efficiency in buildings. Knowledge of computer analysis (DOE-2, BLAST, or TRNSYS), experience as PI, writing skills. Minimum 10years (can be academic). Will consider sabbatical. Contact Adrian Tuluca.





Call for SPARK Beta Testers

Beta testing of SPARK will begin soon. As you may know, SPARK will let you quickly build models of complex physical processes by connecting calculation modules from a library. It is aimed at simulation of innovative and/or complex building systems that are beyond the scope of programs like DOE-2 and BLAST.

The main elements of SPARK are an interactive *graphical editor*, an *object library* containing calculation modules for building components and processes, and a *solver* for solving the set of simultaneous algebraic and differential equations that correspond to the physical problem being simulated. With the graphical editor you graphically link the objects into networks that represent a building's envelope, lighting or HVAC system. With the support of DOE, SPARK is being developed by the LBNL Simulation Research Group, California State University Fullerton and Chapman University.

SPARK differs from DOE-2 in several important respects: (1) its timestep can be as small or large as you want; (2) it uses an iterative solution and so can easily handle non-linear systems; (3) it is equation based and so can simulate arbitrarily complex systems that can be described by sets of algebraic and differential equations; and (4) its algorithms are not hard wired, which means you can easily customize it to particular simulation problems. SPARK will be initially be made available as a stand-alone program. The first release will include a library of basic HVAC components like fans, mixing boxes, heat exchangers, coils, chillers, cooling towers, and controls that you can immediately begin to assemble into complete HVAC systems. Later, SPARK will be integrated into PowerDOE and DOE-2.2, allowing you to analyze the performance of innovative HVAC systems using DOE-2-calculated loads. We will also add a library of envelope component objects, at which point you will be able to use SPARK to add innovative heat transfer models to DOE-2. You will be able to run the beta version under Unix, DOS or Microsoft Windows. However, to use the graphical editor you will need a machine that can run the X-Window operating system. Otherwise, you can use the SPARK command-line interface to define and link objects.

If you would like to be a beta tester please contact Kathy Ellington at kathy@gundog.lbl.gov or fax this page to 510-486-4089. We will contact you with more information prior to beta release.

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The newsletter itself, that precious
beacon of light in the dark world of
building simulation, is discarded!

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